



Profiles of North Dakota Waterfowl

Ducks, geese and swans are web-footed birds designed for wetlands. Of 146 species of waterfowl in the world, 22 are at least frequent visitors to North Dakota, while another nine or more species are incidental or rare visitors.

The following pages provide a brief description of the appearance, relative abundance and life history characteristics of 20 of the most frequent waterfowl visitors to North Dakota.

Waterfowl are generally characterized by elongated bodies for flying and swimming, relatively long necks, beaks with a horny tip and jagged edges, water repellant feathers, and strong pointed wings.

Much of the information provided below was gleaned from "Ducks, Geese and Swans of North America" by the late Frank Bellrose. Wing spread is measured from wing tip to wing tip. Length is measured from the tip of the bill to the tip of the tail. All weights, measurements, clutch size and incubation periods are averages. Wing coloration patterns focus on the shoulder or wing patch, and the speculum or secondary feathers and greater coverts on the trailing edge of the wing near the body.



Puddle Ducks or Dabblers

Dabbling ducks are designed for feeding in shallow water or on land, as their legs are positioned centrally on the body to allow for tip-up feeding and walking. Drakes generally have bright, distinctive plumage during breeding season. Hens are drab for camouflage protection while on the nest. In most species, the speculum is brightly colored and iridescent. The hind toe is not lobed. These puddle ducks are able to explode off the water into flight.



Blue-winged teal

BLUE-WINGED TEAL

Wing spread: 24 inches

Body length: 15 inches

Weight: 0.9 pounds

Description: Males are small grayish brown ducks with a sky blue wing patch. In spring they have a large white crescent in front of the eyes. Females are drab brown with a paler blue wing patch.

Nesting habitat: Prefer nesting in large blocks of undisturbed grasslands and grassland edges.

Clutch size: 10 eggs

Incubation period: 24 days

Status in North Dakota: The blue-winged teal is the most common duck in North Dakota. Birds arrive later in spring than many duck species, nest in May or June and are the first to migrate south in mid-September.

Food habits: Surface and shallow water feeders on small aquatic plants and animals in wetlands.

Tidbit: Blue-winged teal migrate farther south than any other North American duck, into the Caribbean, Mexico and South America.



Green-winged teal

GREEN-WINGED TEAL

Wing spread: 24 inches

Body length: 14 inches

Weight: 0.7 pounds

Description: Males are small grayish brown ducks. From late fall through spring, males have a chestnut head with green patch extending from the front of eyes to crest. Females are drab brown. Both sexes have green wing speculum with white bars.

Nesting habitat: Nests in grasslands near water in dense stands of grass, weeds, and brush.

Clutch size: 8 eggs

Incubation period: 21 days

Status in North Dakota: The green-winged teal is a fairly common migrant through North Dakota, but nests here in small numbers.

Food habits: Feeds on mud flats for mostly seeds and other vegetation.

Tidbit: The green-winged teal is the smallest of ducks, and one of the most energetic fliers.

GADWALL

Wing Spread: 35 inches

Body Length: 20 inches

Weight: 2 pounds

Description: Males are medium-sized grayish brown birds with a black bill. Males have a chestnut wing patch. Females are brownish gray with an orangish bill. Both sexes have white and black wing speculum and white belly. It's the only dabbling duck in North Dakota without an iridescent speculum.

Nesting habitat: Nests in large patches of tall, dense grass vegetation and on small islands.

Clutch size: 10 eggs

Incubation period: 26 days

Status in North Dakota: The gadwall commonly nests in North Dakota.

Food habits: Feeds in wetlands on sago pondweed, salt grass and hardstem bulrush.

Tidbit: *The gadwall's greatest nesting density in North America is in North Dakota.*



ED BRY

Gadwall

AMERICAN WIGEON

Wing spread: 34 inches

Body length: 20 inches

Weight: 1.8 pounds

Description: Males are small- to medium-sized grayish brown ducks. From late fall through spring, males have a white crown on head, green eye patch and a rectangular white wing patch. Females are a drab brownish gray. Both sexes have glossy green and black wing speculum, an elliptical white belly, and blue bill with black tip.

Nesting habitat: Nests in upland grasslands and in clumps of buckbrush.

Clutch Size: 9 eggs

Incubation period: 24 days

Status in North Dakota: Wigeon are common during migration, and nests in low densities throughout the state.

Food habits: Feeds in wetlands on stems and leaves of aquatic plants, and occasionally waste grains.

Tidbit: *Another common name for this duck is baldpate. Wigeon often feed near diving ducks, snatching away plants the diving ducks have brought to the surface.*



ED BRY

American wigeon

MALLARD

Wing spread: 36 inches

Body length: 25 inches

Weight: 2.8 pounds

Description: Mallards are large ducks. From late fall through spring, males have a glossy green head, brown chest, and gray back. Females are a drab brownish gray. Both sexes have a glossy violet blue wing speculum with white bars.

Nesting habitat: Highly variable in nest site selection, but do best in large blocks of undisturbed grassland cover.

Clutch size: 9 eggs

Incubation period: 28 days

Status in North Dakota: The mallard is abundant during migration seasons, and commonly nests in North Dakota, and some birds winter in the state anywhere there is open water and food.

Food habits: The mallard is highly adaptive, feeding on a variety of foods ranging from aquatic seeds and grains to acorns.

Tidbit: *The mallard is one of the most researched animal species in the world, and the most abundant in the hunter's bag.*



CRAIG BIHRLE

Mallards



CRAIG BIRLE

Northern shoveler

NORTHERN SHOVELER

Wing spread: 31 inches

Body length: 19 inches

Weight: 1.5 pounds

Description: Shovelers are a medium-sized duck with a distinctive large bill. From late fall through spring, males have a glossy green head, white chest and chestnut sides. Females are a drab brownish gray. Both sexes have a blue wing patch, and glossy green speculum with white bars. Its wings are identical to blue-winged teal, except larger.

Nesting habitat: Typically nests in tall undisturbed grass cover.

Clutch size: 10 eggs

Incubation period: 24 days

Status in North Dakota: The northern shoveler is common during migration and nesting seasons in North Dakota.

Food habits: Shovelers feed on plankton, fingernail clams and aquatic insects.

Tidbit: Shovelers have the most unusual feeding habits of any duck. At times, tight groups of several dozen birds will rotate in a pinwheel fashion, stirring up the surface water.



HAROLD UMBER

Northern pintail

NORTHERN PINTAIL

Wing spread: 35 inches

Body length: 25 inches

Weight: 2.3 pounds

Description: The pintail is a large duck with a distinctive long neck and pointed tail. From late fall through spring, males have a brown head, white throat and chest, and gray back and sides. Females are a drab brownish gray. Both sexes have a glossy green speculum with buff tan and white bars (female speculum duller).

Nesting habitat: Large grasslands blocks, but tend to seek lower and more sparse vegetation than other ducks.

Clutch size: 8 eggs

Incubation period: 23 days

Status in North Dakota: The northern pintail is common during migration and nesting seasons in North Dakota.

Food habits: Pintails feed on insects, seeds and cereal grains.

Tidbit: When the North Dakota prairies are dry, pintails fly to the far north and summer in arctic and subarctic habitats.



HAROLD UMBER

Wood duck

WOOD DUCK

Wing spread: 28 inches

Body length: 20 inches

Weight: 1.5 pounds

Description: The wood duck is medium-sized duck. From late fall through spring, males have a black head with purple and green iridescence, white eye ring, two parallel white stripes extending into the crest, white throat patch and red eyes. The chest is reddish brown, back glossy black, and belly white. Females are drab gray with white eye ring and belly. Both sexes have a glossy green, purple and blue wing with a white bar on the trailing edge of the speculum (female speculum duller).

Nesting habitat: Typically lays eggs in tree cavities, generally restricted to riparian forests along major rivers and streams on the Northern Plains.

Clutch size: 12 eggs

Incubation period: 30 days

Status in North Dakota: Wood ducks are fairly common during nesting and fall migration seasons in wooded habitats in North Dakota, especially along major rivers.

Food habits: Wood ducks feed on insects, sago pond weed, seeds and acorns.

Tidbit: In the early 1900s, wood ducks were nearly wiped out because of unrestricted year-round market hunting and habitat destruction. Hunting was severally restricted by the passing of the Migratory Bird Treaty Act of 1918, and not relaxed until 1941. Recovery of wood ducks is now heralded as one of the great wildlife conservation success stories of the 20th century, due in part to construction and distribution of nesting boxes.

Diving Ducks and Mergansers

Like dabblers, drakes and hens have distinguishing plumage. Divers and mergansers have a more rounded body with legs set well back to facilitate diving for food. The hind toe is lobed.

Merganser bills are hooked and have tooth-like lamellae for catching and holding fish. Divers and mergansers most often have to run across the water's surface to become airborne. Diving ducks will often raft in large numbers on larger waters, but use smaller, shallower ponds during the breeding season.

LESSER SCAUP

Wing spread: 29 inches

Body length: 17 inches

Weight: 1.8 pounds

Description: The lesser scaup is a medium-sized duck. On water, males generally appear black on both ends with a light gray belt around the middle, and sport a blue bill. Females are a nondescript brown. Both sexes have a dark brown wing with a white bar on the speculum.

Nesting habitat: Nests in upland grass cover, often a considerable distance from water.

Clutch size: 9 eggs

Incubation period: 25 days

Status in North Dakota: The lesser scaup, or bluebill, is abundant during migration seasons, but nests in low densities across North Dakota.

Food habits: Scaup feed on seeds and parts of various aquatic plants, snails, small clams and aquatic insects.

Tidbit: *With the exception of sea ducks, lesser scaup feed in deeper water than any other diving duck, commonly in water 10-25 feet deep.*



CHRIS GRONDAHL
Lesser scaup

REDHEAD

Wing spread: 33 inches

Body length: 20 inches

Weight: 2.4 pounds

Description: The redhead is a large duck. Males have a large round reddish head, gray back and black tail. Females are a nondescript tawny brown. Both sexes have a gray bill with a white band toward the tip, dark grayish brown wing and a dull pearl gray speculum.

Nesting habitat: Most redheads nest over water in dense stands of emergent vegetation.

Clutch size: 10 eggs

Incubation period: 24 days

Status in North Dakota: Redheads are common during migration and nesting seasons in North Dakota.

Food habits: Redheads feed primarily on aquatic plant seeds, tubers and leaves.

Tidbit: *Redheads are considered semi-parasitic nesters, with some hens laying eggs in the nests of other species of ducks and then may or may not incubate a clutch of their own.*



CHRIS GRONDAHL
Redheads



CHRIS GRONDAHL

Ring-necked duck

RING-NECKED DUCK

Wing spread: 28 inches

Body length: 17 inches

Weight: 1.6 pounds

Description: The ring-necked duck is medium-sized. Males have a purplish iridescent head, black back, white belly and reddish ring around the neck. Females are a nondescript gray brown. Both sexes have a gray bill with white ring and black tip, dark grayish with greenish iridescence on shoulder of wing and a dull pearl gray speculum.

Nesting habitat: Ring-necked ducks generally nest over water on floating vegetation mats or in clumps of emergent vegetation.

Clutch size: 9 eggs

Incubation period: 26 days

Status in North Dakota: The ring-necked duck is uncommon during nesting and fall migratory seasons in North Dakota, and often seen in association with scaup.

Food habits: Feeds on aquatic insects, bulrush seeds, sedge and smartweed, as well as the leafy portions of coontail and duckweed.

Tidbit: Ring-necked ducks tend to feed in shallower water than other diving ducks, usually less than 6 feet deep. Also, they tend to leap into flight like puddle ducks and at times tip up to feed.



ED BRY

Canvasback

CANVASBACK

Wing spread: 34 inches

Body length: 21 inches

Weight: 2.8 pounds

Description: The canvasback is a large duck with a distinctive long sloping head. Males have a chestnut brown head and neck, black chest and tail, and nearly white back and sides. Females have a brownish head and chest and light gray body. Both sexes have grayish white on shoulder of wing and a dull pearl gray speculum.

Nesting habitat: Generally around the perimeter of semi-permanent wetlands in stands of bulrush and cattails.

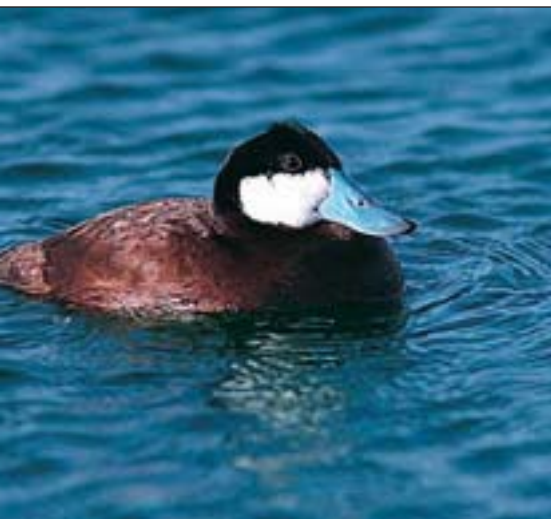
Clutch size: 8 eggs; nests commonly parasitized by redheads.

Incubation period: 25 days

Status in North Dakota: Fairly common to common during nesting and migration seasons.

Food habits: Canvasbacks feed on sago pondweed, wild celery, small clams and snails.

Tidbit: Of all the extensively distributed game ducks, the canvasback is the least abundant. Due to their large size, drake canvasbacks are sometimes referred to as "bull cans." Unlike most ducks that migrate south during fall, most canvasbacks migrate to the East Coast.



CHRIS GRONDAHL

Ruddy duck

RUDDY DUCK

Wing spread: 23 inches

Body length: 15 inches

Weight: 1.2 pounds

Description: The ruddy duck is a small duck with a compact body shape. Males have a reddish brown body, white face patch, dark brown cap, and blue bill. Females have a grayish brown body. Both sexes have a nondescript brownish wing with white flecking.

Nesting habitat: Ruddy ducks generally nest in bulrush and cattail stands surrounding wetlands.

Clutch size: 8 eggs

Incubation period: 24 days

Status in North Dakota: Ruddy ducks are common during nesting and migration seasons in North Dakota.

Food habits: Feeds primarily on bulrush seeds and aquatic insect larvae.

Tidbit: Ruddy ducks are sometimes referred to as bull-necked teal because of their chunky bodies and thick necks.

BUFFLEHEAD

Wing spread: 24 inches

Body length: 15 inches

Weight: 1.1 pounds

Description: The bufflehead is a small duck. Males have a black head with green iridescence and a white wedge-shaped crown patch, black back and white chest and belly. Females are generally brown and black with a small white spot behind the eyes. Males have a large white shoulder patch; both sexes have a white speculum.

Nesting habitat: Buffleheads are cavity nesters, often using older woodpecker holes.

Clutch size: 9 eggs

Incubation period: 30 days

Status in North Dakota: Buffleheads are fairly common during migration seasons. Those ducks that do nest in North Dakota are found most commonly in the Turtle Mountains and other forested areas.

Food habits: Feeds primarily on aquatic insects and other invertebrates.

Tidbit: At times, limited nesting sites put buffleheads in competition with starlings and woodpeckers for nesting cavities.



HAROLD UMBER

Bufflehead

COMMON GOLDENEYE

Wing spread: 31 inches

Body length: 19 inches

Weight: 2.4 pounds

Description: The common goldeneye is a large duck. Males have a black head and back with a round white spot between eyes and bill, white chest and belly, and distinctive yellow or gold eyes. Females generally have a mottled brown back, chest and sides; brown head without eye spot, and white belly. Males have a large white shoulder patch, and both sexes have a white speculum.

Nesting habitat: The goldeneye is a cavity nester, but because of its large size it frequently nests where the tops of mature trees have broken off.

Clutch size: 9 eggs

Incubation period: 30 days

Status in North Dakota: An uncommon sight during migration, and rarely nests in North Dakota. Some winter on the Missouri River below Garrison Dam.

Food habits: Feeds primarily on crayfish, insects, snails, small clams and, to a lesser extent, aquatic plant seeds and tubers.

Tidbit: The common goldeneye is generally regarded as the last migrant south, and winters across North America as far north as there is open water. Its whistling wings during flight is distinctive.



CHRIS GRONDAHL

Common goldeneye

HOODED MERGANSER

Wing spread: 26 inches

Body length: 18 inches

Weight: 1.6 pounds

Description: Males have a black head with a white spot on crest, black back, brown sides, white chest and belly, and gray patch on shoulder. Females are brownish gray on head, chest and sides, and have a dark back. Both sexes have white bars on the wing speculum.

Nesting habitat: Typically nests in tree cavities.

Clutch size: 11 eggs

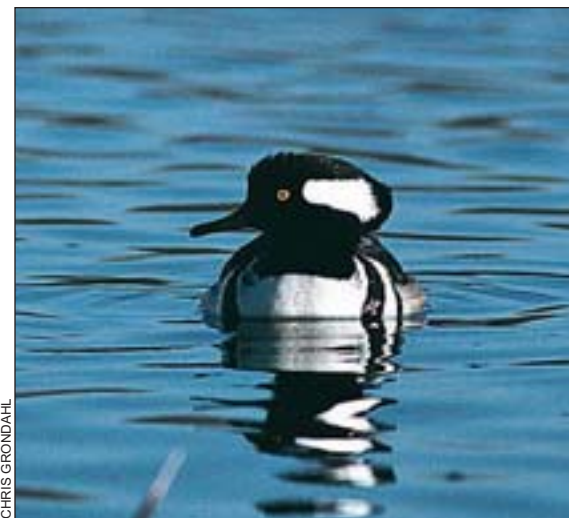
Incubation period: 32 days

Status in North Dakota: Uncommon during migration, but a fairly common nester in wooded habitat. Eastern North Dakota is considered secondary breeding range.

Food habits: Aquatic insects, small panfish and minnows, crayfish and frogs.

Tidbit: In an effort to attract a mate, the male hooded merganser may swim rapidly around the female, then leap into the air and perform a somersault before splashing back into the water.

The hooded merganser competes with wood ducks for nesting cavities in North Dakota.



CHRIS GRONDAHL

Hooded merganser



WATERFOWL MIGRATION FLYWAYS



CRAIG BIHRLE

Migration, Orientation, Navigation and Flyways

Seasonal migration of birds has long fascinated humans. Their ability to undergo long arduous flights twice a year is astounding.

The value of moving great distances between summer and wintering areas needs to far outweigh the potential costs for these behavioral traits to be maintained in a species. Among the most obvious benefits of migration are: (1) being able to live in a comfortable climate throughout the year and less physiological stress during the breeding season, (2) take advantage of abundant seasonal food sources such as insects, (3) longer days provide more opportunities to gather food and produce young, (4) by concentrating the breeding season over a short period of time and in a relatively small area, birds swamp predators with more food (eggs and chicks) than they can eat before young are able to fly, (5) limit the impacts of parasites and diseases on the species, and (6) perhaps the rigors of long distance migrations provides a natural selection mechanism for removing less fit individuals from the population before they consume resources needed by the population as a whole.

The timing of migrations is influenced by the length of days, temperature and other weather factors. Orientation and navigation by birds is a more difficult question to

answer. Many species are able to detect the Earth's magnetic field. In short, they possess an internal compass to orient themselves to the world. They may also use the sun and stars to orient themselves and navigate. Additionally, there are probably some learned responses to environmental cues young birds develop while migrating with parents and other adults.

Among the environmental cues, there is a strong tendency to use geographical landmarks to aid in navigation. Birds often follow large river systems and coastlines, and avoid flying over mountains and larger bodies of water. As a result, birds in North America are funneled down four traditional corridors or flyways – Pacific, Central, Mississippi and Atlantic – during their spring and fall migrations. There are exceptions. For example, canvasbacks and tundra swans regularly cross from one flyway to another.

These flyways also serve as administrative units. Since 1948, member states and provinces have established flyway councils that use survey counts, brood production, harvest data, and other information to tailor hunting regulations to manage waterfowl populations within each flyway.

Geese and Swans

Male and female geese look similar. Geese are grazers and tend to feed on land. Legs and neck are proportionally longer when compared to ducks.

As with geese, male swans are slightly larger than females, but otherwise similar in appearance. Adult North American species of swans have all white plumage. The necks of swans are even longer proportionally than those of geese to aid in underwater feeding.



CRAIG BIRHLE

Lesser snow geese

LESSER SNOW GOOSE (AND ROSS'S GOOSE)

Wing spread: 58 inches

Body length: 29 inches

Weight: 6 pounds

Description: Snow geese occur in two color phases, white and blue, and both sexes are identical within each phase. In the white phase, geese are all white with black wing tips. Blue geese are blue-gray with a white head. Ross's geese are virtually identical to white phase snow geese. Ross's geese are a distinct species that weigh 3-4 pounds and have smaller, stubbier bills.

Nesting habitat: Nest on the ground in large colonies along the coastal tundra of the arctic and subarctic Canada.

Clutch size: 4 eggs

Incubation period: 23 days

Status in North Dakota: Snow geese are abundant during migration seasons, but do not nest in North Dakota.

Food habits: Snow geese graze heavily on foliage and tubers on tundra breeding grounds. During migration and on wintering grounds they feed heavily on agricultural crops.

Tidbit: *Agricultural crops, particularly rice on wintering grounds, provide an abundant food source. This has allowed the snow goose population to rapidly expand. As a result, an overabundance of snow geese has led to the destruction of much of the vegetation on breeding grounds.*



CRAIG BIRHLE

Greater white-fronted geese

GREATER WHITE-FRONTED GOOSE

Wing spread: 60 inches

Body length: 29 inches

Weight: 6.3 pounds

Description: Both sexes have pinkish bills, white face patches, and grayish-brown heads, necks and bodies. Breast is marked with black blotches and bars, and legs are orange.

Nesting habitat: Nest on the ground in upland areas and tidal flats of arctic rivers, and coastal plains of Canada and Alaska.

Clutch size: 5 eggs

Incubation period: 23 days

Status in North Dakota: The white-fronted goose is fairly common during migration seasons, but does not nest in North Dakota.

Food habits: Grazes primarily on foliage grasses, seeds and tubers on tundra breeding grounds. Feed heavily on agricultural crops during migration and on wintering grounds.

Tidbit: *Dark blotches and irregular bars on the breast have led to the common name of specklebelly or tiger breast. They are a trophy bird for North Dakota goose hunters.*

CANADA GOOSE

Wing spread: 48-68 inches

Body length: 16-36-plus inches

Weight: 2.8-14 pounds

Description: Both sexes have black heads, necks and bills, with white cheek patches, and grayish-brown backs and wings. The breast and belly gradating from gray to white, and legs and bills are black.

Nesting habitat: Highly variable in nest site selection, ranging from dense marshes and muskeg to bucket-type cavity nests in broken off trees.

Clutch size: 5 eggs

Incubation period: 26 days

Status in North Dakota: The Canada goose is common to abundant during migration and nesting seasons in North Dakota. Will winter along river systems where open water is available.

Food habits: Grazes primarily on grasses, clover and cultivated crops. Feed heavily on agricultural crops during migration and on wintering grounds.

Tidbit: Included within the species are 11 races of geese, ranging in size from diminutive cackling geese, weighing about three pounds, to the giant Canada goose which averages 12-14 pounds. The giant Canada was once thought extinct, but from a few birds discovered in the early 1960s, it has become the most numerous of the 11 races.



CRAIG BIHRLE

Canada geese

TUNDRA SWAN

Wing spread: 85 inches

Body length: 52 inches

Weight: 16 pounds

Description: Adults of both sexes are all white, and the bill is black with a yellow spot in front of the eye. Immature birds are light grayish brown.

Nesting habitat: Elevated hummocks along shorelines and tidal meadows of the Alaskan and Canadian arctic.

Clutch size: 4 eggs

Incubation period: 31 days

Status in North Dakota: The tundra swan is common during spring and fall migrations, but does not nest in North Dakota.

Food habits: Grazes primarily on aquatic plants, particularly sago pondweed and wigeon grass.

Tidbit: The call of the tundra swan distinguishes it from the trumpeter swan. The tundra swan has a high-pitched quavering oo-oo-oo, rising in volume in the middle of the call. While most waterfowl migrate south in fall, swans migrate to the East Coast.



CRAIG BIHRLE

Tundra swan

Infrequent North Dakota Fliers

Some of the incidental or rare waterfowl visitors to North Dakota:

- **Brant** – Similar to the Canada goose, but smaller, shorter-necked and missing the obvious white cheek patch.
- **Trumpeter swan** – By the early 1900s, market hunters, who sought the big bird for its down, skin, and eggs, had nearly wiped it from existence.
- **Red-breasted merganser** – Lives mainly on fish, which it catches in swift underwater dives.
- **Greater scaup** – Two or more female scaup sometimes pool their broods and tend them together.
- **Long-tailed duck** – Has been known to dive to depths of more than 200 feet in search of food.
- **White-winged scoter** – Doesn't add down to cushion its nest until all the eggs have been laid.
- **Black duck** – The hen often keeps her distance from foraging young so as not to compete for food.
- **Cinnamon teal** – Like its relative the blue-winged teal, this bird migrates south in fall earlier than other dabbling ducks.
- **Mottled duck** – Often mistaken for a hen mallard or black duck.